

III. REMARKS

The Response under 37 C.F.R. § 1.111 previously filed on November 13, 2007 is herein incorporated by reference in its entirety except to the extent that the November 13 response is deemed to conflict with the present Supplemental Response in which case Applicants request that the Office look to the present document for Applicants' response. The present Supplemental Response is supplemental to the November 13 Response for example with respect to sections entitled "Priority" and "Rejections under 35 U.S.C. § 102".

With respect to the claims, Applicants presume that the claim amendments filed on November 13, 2007 are entered prior to submission of the present Supplemental Amendment, which Supplemental Amendment shows claim amendments relative to the claims as presented in the Response filed November 13, 2007. By the present Supplemental Amendment, claims 2, 7, 12, and 24 are currently further amended. Claims 60 and 61 have been added. Claims 1, 3-5, 9-11, 15-18, 22, 23, 27-31, and 39-59 have been cancelled. Claims 6, 8, 13, 14, 20, 21, 25, and 38 are original, and claims 19, 26, and 32-37 have been previously presented. Support for the present amendments may be found, for example, in the original claims, sequence listing and specification for example at page 30, lines 21-22.

Priority

The Office Action mailed July 11, 2007 requested that Applicants disclose the sequence identifiers in the priority applications which are identical to SEQ ID NO: 5272 of the instant application. Office Action at page 3. In their Response dated November 13, Applicants noted that sequences identical to SEQ ID NO: 5272 of the instant application were first disclosed as SEQ

ID NO: 22273 in U.S. Application No. 60/139,932, filed June 21, 1999, as SEQ ID NO: 42735 in U.S. Application No. 60/143,994, filed July 15, 1999, and as SEQ ID NO: 9911 in U.S. Application No. 60/155,422, filed September 23, 1999.

Applicants clarify that SEQ ID NO: 5272 of the instant application is identical to SEQ ID NO: 22273 of U.S. Application No. 60/139,932, filed June 21, 1999 and SEQ ID NO: 42735 of U.S. Application No. 60/143,994, filed July 15, 1999, from base pairs 2012 through 3941 of SEQ ID NO: 5272 as shown on the attached alignments. *See* Attachments A and B. SEQ ID NO: 5272 of the instant application is identical to SEQ ID NO: 9911 of U.S. Application No. 60/155,422, filed September 23, 1999, from base pairs 1 to 3941 of SEQ ID NO: 5272. *See* Attachment C.

Rejections under 35 U.S.C. § 102:

Claims 2, 6 to 8, 27 and 28 were rejected under 35 U.S.C. § 102(a) as allegedly being anticipated by GenBank Accession No. AP000604. Office Action at page 19. As stated in the Response dated November 13, 2007, Applicants respectfully traverse this rejection.

In their November 13 Response, Applicants stated that "... whatever else GenBank Accession Number AP000604 teaches, it does not disclose SEQ ID NO: 5272 or the complement thereof." *See* Response under 37 C.F.R. § 1.111 filed November 13, 2007 at page 18. Upon additional review, Applicants wish to clarify that GenBank Accession Number AP000604 does not teach or disclose SEQ ID NO: 5272 or a complete complement that is 100% identical over the full length of SEQ ID NO: 5272. Applicants wish to bring to the Examiner's attention the definition of "complement" set forth within the specification at page 21. Specifically, that "[t]he

nucleic acid molecules of the present invention ... also include molecules that, although capable of specifically hybridizing with the nucleic acid molecules may lack ‘complete complementarity’.” Indeed, “... molecules are said to be ‘complementary’ if they can hybridize to one another with sufficient stability to permit them to remain annealed to one another under conventional ‘high-stringency’ conditions.” *See* Specification at page 10.

Moreover, Applicants wish to bring to the Examiner’s attention that the currently amended and newly added claims do not recite or require a complete complement over 100% of the full length of SEQ ID NO: 5272. Indeed, the claims have been amended to clarify that the nucleic acid molecule comprises from about 30 to about 300 nucleotide residues of SEQ ID NO: 5272 or complements, *i.e.*, that the nucleic acid molecule comprises at least about 30 nucleotide residues from SEQ ID NO: 5272 or its complement.

In addition, Applicants note that their November 13 Response stated that “[o]ne of ordinary skill in the art would not reasonably interpret a sequence complementary to SEQ ID NO: 5272 at merely a particular segment of SEQ ID NO: 5272, as identical to for example, SEQ ID NO: 5272 or its complement....” *See* Response under 37 C.F.R. § 1.111 filed November 13, 2007 at page 19. As above, Applicants wish to clarify that one of ordinary skill in the art would not reasonably interpret a sequence complementary to SEQ ID NO: 5272 at merely a particular segment of SEQ ID NO: 5272, as identical to for example, SEQ ID NO: 5272 or its complete complement that is 100% identical over the full length of SEQ ID NO: 5272.

With respect to GenBank Accession No. AP000604 (NCBI website October 15, 1999), Applicants respectfully point out that the priority date of the captioned application precedes the

stated NCBI date. For example, as discussed above in the section entitled “Priority”, SEQ ID NO: 5272 of the instant application is identical to SEQ ID NO: 22273 of U.S. Application No. 60/139,932, filed June 21, 1999, from base pairs 2012 through 3941 of SEQ ID NO: 5272. As such, Applicants are entitled to a priority date of at least June 21, 1999 or earlier. Accordingly, AP000604 (NCBI website October 15, 1999) could not have been known or used before invention by applicants. 35 U.S.C. § 102(a).

Based on the foregoing, Applicants respectfully submit that GenBank Accession Number AP000604 cannot be anticipatory.

Likewise with respect to the Brennan reference (U.S. Patent No. 5,474,796), Applicants, in their November 13 Response, stated that “[o]ne of ordinary skill in the art would not consider a sequence of 10 nucleotides as identical to, for example, SEQ ID NO: 5272, or its complement, both of which are 3941 bases in length.” *See* Applicants’ November 13, 2007 Response. What was meant by such a statement was that one of ordinary skill in the art would not consider a sequence of 10 nucleotides as identical to, for example, SEQ ID NO: 5272 or its complete complement that is 100% identical over the full length of SEQ ID NO: 5272.

The presently pending claims recite a nucleic acid comprising from about 30 to 300 base pairs of SEQ ID NO: 5272 or complements. Whatever else Brennan may teach or suggest, it does not teach or suggest a nucleic acid comprising from about 30 to 300 nucleotide residues of SEQ ID NO: 5272 or complements, *i.e.*, Brennan does not teach or suggest a nucleic acid comprising at least about 30 nucleotide residues. As such, Applicants respectfully submit that the presently pending claims are not anticipated by Brennan.

Based on the foregoing, Applicants request withdrawal of the remaining rejections under
35 U.S.C § 102, Anticipation.

IV. CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that the present application is now in condition for allowance, and respectfully request notice of such. The Examiner is encouraged to contact the undersigned at 202-942-5325 if any additional information is necessary for allowance.

Respectfully submitted,

A handwritten signature in cursive script, reading "Lisa A. Adelson", written in dark ink.

Date: January 3, 2008

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ATTACHMENT A

SEQ ID NO: 5272
CCTCCAATGAAATATATATCACTGCCAATTGTCACATTGAGTGTGGAGTGGATAAGTAATAAGAGACAAA
70

SEQ ID NO: 22273 -----
----- 0

Consensus
..... 70

SEQ ID NO: 5272
CAATCATCCCACAAGTATTGGTAACTTGAAGGCACAAGTTTTGAAACAAACCTTATGTTCTGCATTCTA
140

SEQ ID NO: 22273 -----
----- 0

Consensus
..... 140

SEQ ID NO: 5272
AAATAGTGAAAGTTTTCCCCATTGCTCTGAAGGCCCGTGC GGGTGCTTTGNNNNNNNNNNNNNNNNNNNN
210

SEQ ID NO: 22273 -----
----- 0

Consensus
..... 210

SEQ ID NO: 5272
NNNNNNNATCAATCCACAACCAGAGATATTACGAGCCATTACTCAGACATACAGATGTTTGGCTGGTGAGA
280

SEQ ID NO: 22273 -----
----- 0

Consensus
..... 280

SEQ ID NO: 5272
TTCATGTCATCGACAACCATAGATTGAAAAGGAAAAATGTAAGTACACCCACCTGTTTCATCCTCTGACA
350

SEQ ID NO: 22273 -----
----- 0

Consensus
..... 350

SEQ ID NO: 5272
ATGGGTACACATCACCAAATAATGTCACTCTTGCAATTCGATAAGCCACTCCATCCGGGTATCTGCCAGCC
420

SEQ ID NO: 22273 -----
----- 0

Consensus
..... 420

SEQ ID NO: 5272
AAATCAACGGTTACATAACATAAAGGGTAAACCTTTTGCTCGTATAATTTAAACACAATAGCCAATGTTA
490

SEQ ID NO: 22273 -----
----- 0

Consensus
..... 490

SEQ ID NO: 5272
CCTGAACAACAAGGCTGCATCTAGGTTCAATTCAAGAGATTTTCGTGTGTGGATGGCCAGCGGTGAAAAACA
560

SEQ ID NO: 22273 -----
----- 0

Consensus
..... 560

SEQ ID NO: 5272
AAATATTGGATCTGATAAGAAAAAGTAGAAGCAATTCAAGAAATGAGCATCTATTATATCTCAACCAGTA
630

SEQ ID NO: 22273 -----
----- 0

Consensus
..... 630

SEQ ID NO: 5272
GACTCAAAACATTAATTGTACCATTTATAATTTGGTATTGCCTTCAATACACAGACACAAAAACACTCCTA
700

SEQ ID NO: 22273 -----
----- 0

Consensus
..... 700

SEQ ID NO: 5272
CATGTACACCTCTAATGAAATTTAAGGAAAAGAGGGAAAAAACCGCTTTGACTTCACTTCCTACTATTTCG
770

SEQ ID NO: 22273 -----
----- 0

Consensus
..... 770

SEQ ID NO: 5272
TTCCCACAAAAATCAAATCAAGTTAAGTTTTTACAGTTAGAGGAGTTATGACTAAGAACCAATTGTCGAC
840

SEQ ID NO: 22273 -----
----- 0

Consensus
..... 840

SEQ ID NO: 5272
TGGCAAATAATTAAACTCATACTCTGAGAAAAAATTGAGCGTGCAACAAAAGAAGACTGTAGAACTAG
910
SEQ ID NO: 22273 -----
----- 0

Consensus
..... 910

SEQ ID NO: 5272
GAGCAGTCAACAAAGAAAGATAGACTCAGTGACTTACGCCCATCCGATCAGGTGCAAAATCTACCAATG
980
SEQ ID NO: 22273 -----
----- 0

Consensus
..... 980

SEQ ID NO: 5272
AGCCAAATGGGTACCCTTCCCTGCGGTGGTGCATTTTGGACATCACTGTGCACAGATGAGCAAACCTAGC
1050
SEQ ID NO: 22273 -----
----- 0

Consensus
..... 1050

SEQ ID NO: 5272
CTTGAATCATAAAACACAACAAGACAAGACAGATAAAGAACTTAAATAATCTTTTCTCATTGAAGTAAA
1120
SEQ ID NO: 22273 -----
----- 0

Consensus
..... 1120

SEQ ID NO: 5272
AAGGAAGAATACAAACCATCTAAAGGACAAACCTTTTACCTGTTCCAACAAGTTCCGTACAGCTAAAGC
1190
SEQ ID NO: 22273 -----
----- 0

Consensus
..... 1190

SEQ ID NO: 5272
AGGCCGAGGTAAAGCATGAGCTGATGTAGCATTTTGAACACCACCAGATATTGGAGTTCTAAAAAGCCCA
1260
SEQ ID NO: 22273 -----
----- 0

Consensus
..... 1260

SEQ ID NO: 5272
GCTCGATTTCTCCACCACCTGAGGATGTGCAAGAGATGCCTCCACATCGATTACACTATGAGAAGTTT
1330
SEQ ID NO: 22273 -----
----- 0

Consensus
..... 1330

SEQ ID NO: 5272
CACCATTGCTATTACTCCCGAGCTTTTCCTTCACACAACATTACAAGCTATTAATCTCTATGTCAAAGCA
1400
SEQ ID NO: 22273 -----
----- 0

Consensus
..... 1400

SEQ ID NO: 5272
AACCATTACGTGGTATCATCTTTCCGCTAATCTAAGATTCGATTCTACACAAACTCTGCATCAAAACCAA
1470
SEQ ID NO: 22273 -----
----- 0

Consensus
..... 1470

SEQ ID NO: 5272
AGTTTTGTGTCCAAAATTGTAATCTTTTGCTGAATTTTGCATACCCAAAACAAAAGTTATAATCTTTAG
1540
SEQ ID NO: 22273 -----
----- 0

Consensus
..... 1540

SEQ ID NO: 5272
TTGAATTTATTTCATCACAAGACAAGAGAAAAAGTACCTGTGATAAAGAGAAGATATCCCCAGGAAAAAAA
1610
SEQ ID NO: 22273 -----
----- 0

CTTGGATTACCAATACCTGG 19

GACCTATTTCGATTACGATTATTTCGCTTCTTCTAAAATCTTCTACTGTTGATTAAAAAAATTAAATCTCTCTCT

SEQ ID NO: 5272

██████████ C ████ C ████ C ████ C ████ CC ██████████ C ██████████ C ██████████ CAG

2380

SEQ ID NO: 22273

██████████ C ████ C ████ C ████ C ████ CC ██████████ C ██████████ C ██████████ CAG

369

Consensus

AAAGAAATATCTATCATCTCAATTGGTTCAGACCATTTTTAATTTACGTTGAAAAGAAAGATCAAACAGA

2380

SEQ ID NO: 5272

█ C ████ C ████ C ████ C ████ C ████ C ████ C ████ CC ██████████ C ██████████ C ████ CCC

2450

SEQ ID NO: 22273

█ C ████ C ████ C ████ C ████ C ████ C ████ C ████ CC ██████████ C ██████████ C ████ CCC

439

Consensus

TCAATGACACAAACTATAATTAAGGCACTAAACACTAAATGTCTTAATTTGCATAATGCGGGACCCATGT

2450

SEQ ID NO: 5272

C ██████████ C ████ C ████ C ████ C ████ C ████ CCC ████ CC ████ CC ████ CC ████ CC ████ C ████ CC ████ CAGC

2520

SEQ ID NO: 22273

C ██████████ C ████ C ████ C ████ C ████ C ████ CCC ████ CC ████ CC ████ CC ████ CC ████ C ████ CC ████ CAGC

509

Consensus

CAATAATATTTCTCAAACGTTTCTGTTTTTCAGCCCATCCTTCCTCCGAATCCACGCGCCACCGTCTAAGC

2520

SEQ ID NO: 5272

█ C ████ C ████ C ████ C ████ C ████ C ████ CC ████ C ████ C ████ CC ████ C ████ CC ████ C ████ CC ████ C ████ CC ████ C

2590

SEQ ID NO: 22273

█ C ████ C ████ C ████ C ████ C ████ C ████ CC ████ C ████ C ████ CC ████ C ████ CC ████ C ████ CC ████ C ████ CC ████ C

579

Consensus

TGCTGCGTCATTGCACGCGCAATTTGCTTTCAACCGCTCGAATCATCCCAGCTGAAACTCCAGTCACAT

2590

SEQ ID NO: 5272

C ████ C ████ C ████ C ████ C ████ C ████ C ████ CC ████ C ████ C ████ CC ████ C ████ CC ████ C ████ CC ████ C ████ CC ████ C

2660

SEQ ID NO: 22273

C ████ C ████ C ████ C ████ C ████ C ████ C ████ CC ████ C ████ C ████ CC ████ C ████ CC ████ C ████ CC ████ C ████ CC ████ C

649

CTTCTACTTTCTTTAAATTCTGCCACGTCGTCGTGTTCTTAACGCCGAACCAAAACGCCGCCGCTAAGAA

C C G C C C C C C C C C C C C C A E C C A A G C C C C C C C A T A G G D A C C C C C C

CONFIDENTIAL

CACTCTCTTCGTGCTCTTGGGCTCGTCTCCACAGCCAAAGCCAAAGACGCATATGAAACGACAGCGTTT

CC

CC

GTTAAA'TCCCTGTTTAGTCC'TAAC'TTACCACACCAATTTACAAAAATGCCATCCGCCACCGTAACCGCAA

[illegible]

(S) [REDACTED] (U) [REDACTED]

CGGCCTTGGCATTCACTCTGT'TTTTCCCTCCCTCCGCTCTGTTTACGTCACGCGTCGTTGACGATAGCTC

[REDACTED]

[illegible]

GGAGCTTGAGACACAGTCAAGAGACGAGCAGCAAGAAGAAGACGACGATTCTGAACAACATGTTGTTTCGT

CC BY-NC-ND 4.0

3010

999

GGAGGCCAAGGAAGAAGAGGACACAGAAACGAAATTTTGAGTAAGAGATTTGCAATTTGGGCAAATGACAC
3010

[illegible]

1069

GCCGGAAATGACGAGCGAAGAGAAAAATTTGAGGCATGGAACCTTAGCGTCACAAGAACGGCAGAGGAAGGC
3080

3150

1139

AGAGTCCGGCGGCACAAATGGAGATCAGCTTCGGCACCCACAAAGCTCGCAAAAGCTCACCATTGAGTCGATC
3150

3220

1209

TCTCTGGATCACCGAGAAAGAACTGAGAGAGAATTGGTTTG.AATGATGATGGTGGGAAGAGAGATTTAAG
3220

3290

1279

GAAGAGATGTAAATGATTGAGGGAGAGAAAAGAGCGGTGGAGTTTTTATGGTTCATGGTTGATGAGAGTAG
3290

3360

1349

TCCTCTTCCACAGTTTCACACATCAAAGAAACTTACATGAGCCATAAATTTT³³⁶⁰TAGGGAAATGAAATGAATGG

3430

1419

TCGTTCGTAGAAATTGGAGAGAATGACGTCCTGTGAGGTTTTCGAGGCTGGTGAGATTATGTCGTCATTTTAA
3430

3500

1489

AAACTATTACACTAGCCGCCAACTTCATTGCTCTTCCCTTTTGGTGTGACGTGGAGATTTAGTCAACACTAA
3500

3570

1559

3570

3640

1629

Consensus

CTTCTGCATTGTTGCAGTCCTTTTATATAAACTTTTATACATTGATCTTTTGTGGAATACAAAACAGAAGA
3640

SEQ ID NO: 5272

██████ C ████████ C ████████ C ████████ C ████████ C ████████ C ████████ C ████████ CC ████████

3710

SEQ ID NO: 22273

██████ C ████████ C ████████ C ████████ C ████████ C ████████ C ████████ C ████████ CC ████████

1699

Consensus

TAATACTCTTAATTTATAATCTAAGGAGTAAGGATACAAAACACAAGGTGTAAACTGTGGTGAACCTGTT
3710

SEQ ID NO: 5272

██████ C ████████ CC ████████ C ████████ C ████████ C ████████ C ████████ C ████████ C ████████ CC ████████ C ████████

3780

SEQ ID NO: 22273

██████ C ████████ CC ████████ C ████████ C ████████ C ████████ C ████████ C ████████ C ████████ CC ████████ C ████████

1769

Consensus

TGGGTTCTGATCCGAAGTAGTACAAACAATAGTCTATATCTTGAAATCTTTCCAAAAATGGTTTCTTAAAT
3780

SEQ ID NO: 5272

██████ C ████████ CC ████████ C ████████ CC ████████ CC ████████ C ████████ CC ████████ CCCCC ████████ CC ████████

3850

SEQ ID NO: 22273

██████ C ████████ CC ████████ C ████████ CC ████████ C ████████ C ████████ CC ████████ CCCCC ████████ CC ████████

1839

Consensus

AAAATGGTCTTTGAATAGCCAATCTAAATCCAATAGCTCTGTTAAGATATATCCATAGAGCCCCCTCCTAC
3850

SEQ ID NO: 5272

██████ C ████████ C ████████ CC ████████ C ████████ C ████████ C ████████ C ████████ CC ████████ CC ████████ C ████████ C ████████ C ████████ C ████████

3920

SEQ ID NO: 22273

██████ C ████████ C ████████ CC ████████ C ████████ C ████████ C ████████ C ████████ CC ████████ CC ████████ C ████████ C ████████ C ████████ C ████████

1909

Consensus

GAATCAACTGAGACCTCTCCAGAGAGTTTACTTCTTTGGTATCCGACCATAATGCCTCTGGCGTATTC
3920

SEQ ID NO: 5272

██████ CC ████████ C ████████ C ████████

3941

SEQ ID NO: 22273

██████ CC ████████ C ████████ C ████████

1930

Consensus

TAAATGCCGGNTTTCGTAGCA 3941

ATTACHMENT B

SEQ ID NO: 5272
CCTCCAATGAAATATATATCACTGCCAATTGTCACATTGAGTGTGGAGTGGATAAGTAATAAGAGACAAA
70

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 70

SEQ ID NO: 5272
CAATCATCCCAAGTATTGGTAACTTGAAGGCACAAGTTTTGAAACAAACCTTATGTTCTGCATTCTA
140

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 140

SEQ ID NO: 5272
AAATAGTGAAAGTTTCCCCATTGCTCTGAAGGCCCGTGCGGGTGCTTTGNNNNNNNNNNNNNNNNNNNN
210

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 210

SEQ ID NO: 5272
NNNNNNATCAATCCACAACCAGAGATATTACGAGCCATTACTCAGACATACAGATGTTTGGCTGGTGAGA
280

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 280

SEQ ID NO: 5272
TTCATGCATCGACAACCATAGATTGAAAAGGAAAAATGTAAGTACACCCACCTGTTTCATCCTCTGACA
350

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 350

SEQ ID NO: 5272
ATGGGTACACATCACCAAATAATGTCACTCTTGCAATTCGATAAGCCACTCCATCCGGGTATCTGCCAGCC
420

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 420

SEQ ID NO: 5272
AAATCAACGGTTACATAACATAAAGGGTAAACCTTTTGCTCGTATAATTTAAACACAATAGCCAATGTTA
490

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 490

SEQ ID NO: 5272
CCTGAACAACAAGGCTGCATCTAGGTTCAATTCAAGAGATTTGCTGTGTGGATGGCCAGCGGTGAAAAACA
560

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 560

SEQ ID NO: 5272
AAATATTGGATCTGATAAGAAAAAGTAGAAGCAATTCAAGAAATGAGCATCTATTATATCTCAACCAGTA
630

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 630

SEQ ID NO: 5272
GACTCAAAACATTAATTGTACCATTTATAATTTGGTATTGCCTTCAATACACAGACACAAAAACACTCCTA
700

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 700

SEQ ID NO: 5272
CATGTACACCTCTAATGAAATTTAAGGAAAAGAGGGAAAAAACCGCTTTGACTTCACTTCCTACTATTTCG
770

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 770

SEQ ID NO: 5272
TTCCCAAAAAATCAAATCAAGTTAAGTTTTTACAGTTAGAGGAGTTATGACTAAGAACCAATTGTTCGAC
840

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 840

SEQ ID NO: 5272
TGGCAAATAATTAACTCATACTCTGAGAAAAAATTGAGCGTGCAACAAAAGAAGACACTGTAGAACTAG
910
SEQ ID NO: 42735 -----
----- 0

Consensus
..... 910

SEQ ID NO: 5272
GAGCAGTCAACAAAGAAAGATAGACTCAGTGACTTACGCCCCATCCGATCAGGTGCAAAATCTACCAATG
980
SEQ ID NO: 42735 -----
----- 0

Consensus
..... 980

SEQ ID NO: 5272
AGCCAAATGGGTACCCTTCCCTGCGGTGGTGCATTTTGGACATCACTGTGCACAGATGAGCAAACCTAGC
1050
SEQ ID NO: 42735 -----
----- 0

Consensus
..... 1050

SEQ ID NO: 5272
CTTGAATCATAAAAACACAACAAGACAAGACAGATAAAGAACTTAAATAATCTTTTCTCATTGAAGTAAA
1120
SEQ ID NO: 42735 -----
----- 0

Consensus
..... 1120

SEQ ID NO: 5272
AAGGAAGAATACAAACCATCTAAAGGACAAACCTTTTACCTGTTCCAACAAGTTCCGTACAGCTAAAGC
1190
SEQ ID NO: 42735 -----
----- 0

Consensus
..... 1190

SEQ ID NO: 5272
AGGCCGAGGTAAAGCATGAGCTGATGTAGCATTTTGAACACCACCAGATATTGGAGTTCTAAAAAGCCCA
1260
SEQ ID NO: 42735 -----
----- 0

Consensus
..... 1260

SEQ ID NO: 5272
GCTCGATTTCTCTCCACCACCTGAGGATGTGCAAGAGATGCCTCCACATCGATTACACTATGAGAAGTTT
1330
SEQ ID NO: 42735 -----
----- 0

Consensus
..... 1330

SEQ ID NO: 5272
CACCATTGCTATTACTCCCCGAGCTTTTCTTTCACACAACATTACAAGCTATTAATCTCTATGTCAAAGCA
1400
SEQ ID NO: 42735 -----
----- 0

Consensus
..... 1400

SEQ ID NO: 5272
AACCATTACGTGGTATCATCTTTCCGCTAATCTAAGATTCGATTCTACACAAACTCTGCATCAAAACCAA
1470
SEQ ID NO: 42735 -----
----- 0

Consensus
..... 1470

SEQ ID NO: 5272
AGTTTTGTGTCCAAAATTGTAATCTTTTGCTGAATTTTGCATACCCAAAACAAAAGTTATAATCTTTAG
1540
SEQ ID NO: 42735 -----
----- 0

Consensus
..... 1540

SEQ ID NO: 5272
TTGAATTTATTTCATCACAAGACAAGAGAAAAAGTACCTGTGATAAAGAGAAGATATCCCCAGGAAAAAAA
1610
SEQ ID NO: 42735 -----
----- 0

Consensus
..... 1610

SEQ ID NO: 5272
CCAAACCCATTATTATCTTCACCTTCACTTGGCGTCTCGTTACGTAAGAGAGCTTGTATACGAAGCCCGT
1680

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 1680

SEQ ID NO: 5272
GACTTGATCCATTACTGAGTCTCAGCTTCGGGAATTGCGTTTTGGGTAGCGAATTACAAAACCAACACGA
1750

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 1750

SEQ ID NO: 5272
AGACTGGGATGAAGTGGGCAGCGGAGATTTGAGGAGAGGCTTAGTCTGTAAATTGGGTGTGTGTGTTGAA
1820

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 1820

SEQ ID NO: 5272
GTGAAGAGAGCTTCCATGGTGGATGAGAATAAGATTTGGGTTGAAGAGTCTTCTGATCTTTCACATATGGC
1890

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 1890

SEQ ID NO: 5272
AGATGCTTCAGGCGTCTTTGTTGAAAGTAGCTTTAGGAATTAGGACTTTTCCAGAGTAGGGTTTGTATAA
1960

SEQ ID NO: 42735 -----
----- 0

Consensus
..... 1960

SEQ ID NO: 5272
CACACACATACATATAAGGGTTTTCTTTTCTTTTGGCTTTTTTTTTTATA [REDACTED] C [REDACTED] C [REDACTED] TT
2030

SEQ ID NO: 42735 -----

GTTGGGCTTCCATACCGG 19

Consensus GTT

GGATTACGATTACT.. 2030

SEQ ID NO: 5272

CC BY-NC-SA 4.0

2100

SEQ ID NO: 42735

[REDACTED] CC [REDACTED] CS [REDACTED] C [REDACTED] G [REDACTED] G [REDACTED] C [REDACTED] CAE

89

Consensus

TGTCCTTCGGAATTACTTTTGATGTATTTCTATTCTCTTTTGTTTTGTTTTGATGTTGATAATAACGAA

2100

SEQ ID NO: 5272

[illegible]

2170

SEQ ID NO: 42735

CC-0

159

Consensus

TTTTCCCTT...AATAAGAAAATCTGTTCCTTTTAAATTTCACAATTTTATTGATAATAACATAATATTCTA

2170

SEQ ID NO: 5272

CC BY-NC-ND 4.0 International license.

2240

SEQ ID NO: 42735

CC BY-NC-ND 4.0 International license.

229

Consensus

AGAAATTATCTTTGTTTAAAAAAATTGGGAAAGAAAAGATTCAATCTCATCTCAAAGAACCTGATAAT

2240

SEQ ID NO: 5272

CC BY-NC-ND 4.0

2310

SEQ ID NO: 42735

CC BY-NC-ND 4.0

299

Consensus

GAC"TA"TTGGATTACCATTATTCTCGTTTCTAAAATCTTTCTTACTGTTGAT"TA"AAAAAAATTAAATCTCCTCT

2310

[illegible]

SEQ ID NO: 42735

CC BY-NC-ND 4.0 International license.

.....

AAAGAAATATCTATCATCTCAATTGGTTCAGACCATTTTAAATTTACGTTGAAAAGAAAGATCAAACAG

CC BY-NC-ND 4.0 International license

SEO ID NO: 42735

[illegible]

TCAATGACACAACTATAATTAAAGGCACTAAACACTAAATGTCCTAATTTGCATAATGCGGGACCCATGT

CCCCCCCCCCCCCCCCCCCCCCCCCC

SEQ ID NO: 42735

(S) [REDACTED]

CAATAATATTTCTCAAACGTTGTGGTFTTCAGCCCATCCTTCCTCCGAATCCACGCGCCACCGTCTAAGC

[REDACTED]

SEQ ID NO: 42735

CCCCCCCCCCCCCCCCCC

TGCTGCGTCATTCACGCGCCAA'TTTGCTTTCAACCGCTCGAATCATCCCAGCTGAAACTCCAGTCACAT

CC BY-NC-ND 4.0 International license.

SEQ ID NO: 42735

[REDACTED]

Consensus

CTTCTACTTTCTTTAAATTCTGCCACGTCGTCGTGTTCTTAACGCCGAACCAAAACGCCGCCGCTAAGAA

2660

SEQ ID NO: 5272

[illegible]

2730

SEQ ID NO: 42735

[REDACTED]

719

Consensus

CACTCTCTTCGTCGCTCTTGGCCCTCGTCTCCACAGCCAAAGCCAAAGACGCATATGAAACGACAGCGTTT

2730

SEQ ID NO: 5272

[REDACTED]

2800

SEQ ID NO: 42735

cc cc cc cc cc cc cc cc cc cc cc cc cc cc cc

789

Consensus

GTTAAATCCCTGTTTAGTCCTAACTTACCACACCAATTTACAAAAATGCCATCCGCCACCGTAACCGCAA

2800

SEO ID NO: 5272

CC BY-NC-ND 4.0 International license.

2870

SEQ ID NO: 42735

[illegible]

859

Consensus

CGGCCTTGGCATTCACTCTGTTTTCCCTCCCTCGCGCTCTGTTTACGTACGCGTCGTTGACGATAGCTC

2870

SEQ ID NO: 5272

[REDACTED]

2940

SEQ ID NO: 42735

[illegible]

929

Consensus

GGAGCTTGAGACACAGTCAAGAGACGAGCAGCAAGAAGAAGACGACGATTCTGAACAACATGTTGTTTCGT

2940

SEQ ID NO: 5272

CC BY-NC-ND 4.0 International license.

3010

999

GGAGGCCAAGGAAGAAGACGACCTAGAAAACGAAATTTTGAGTAAGAGATTTGCAATTTGGGCAAATGACAC
3010

[illegible]

1069

3080 GCCGGAAATGACGAGCGAAGAGAAAATTTGAGGCATGGAACCTTAGCGTCACAAGAACGGCAGAGGAAGGC

3150

1139

AGAGTCCGCGCGGCACAATGGAGATTCAGCTTCGCGCACCAACAAAGCTCGCAAAAGCTCACCATTGAGTTCGATC
3150

3220

1209

TCCTCTGGATCACCAGAAAGAAGTGCAGAGAGAATTTGGTTTG. AATGATGATGGTGGGAAGAGAGATTTAAG
3220

3290

1279

GAAGAGATCTTAAATGATTTGAGGGGAGAGAAAGAGCGGTGGAGTTTTATGGTTCATGGTTGATGAGAGTAG
3290

CCGCGCCTGGTTCAGATCAATGC

SEQ ID NO: 42735

[illegible]

=====

TCTCTTCCACAGTTCACACATCAAAGAACTTACATGAGCCATAATTTTTTAGCGAAATGAAATGAATGC

[illegible]

SEQ ID NO: 42735

TGT'TTGTAGAATTGGAGAGAATGACCTTGTCGTGAGGTTTTGAGGCTGGTGAGATTATGTGCTCATTTTTA

3430

[illegible]

3500



AAACTATTACACTAGCCGCCAAGTCATTTCGTCTTCCTTTTGGTGTGACCTGGAGATTTAGTCAACACTAA

3500

CC BY-NC-ND 4.0 International license.

3570

CC BY-NC-ND 4.0 International license.

1559

TGTCTTTTCAGAGACTTGGTCTCATTTGCAAATTGCTTCTTCTTTCTTGGTTGCTTCCATTACATT

3570

[REDACTED]

3640

CONFIDENTIAL

1629

Consensus

CTTCTGCATTGTTGCAGTCCTTTTATATAAACTTTTATACATTGATCTTTTGTCTGAATACAAAACAGAAGA

3640

SEO ID NO: 5272

CC BY-NC-ND 4.0

3710

SEO ID NO: 42735

SECRET

1699

Consensus

TAATACTCTTAATTTATAATCTAAGGAGTAAGGATACAAAACACAAGGTGTAACTGTGGTGAACCTGTT

3710

SEO ID NO: 5272

Page ID# 0076

3780

SEQ ID NO: 42735

CC BY-NC-ND 4.0 International license.

1769

Consensus

TGGGTTCTGATCCGAAGTAGTACAACAAATAGTCTATATCTTGAAAATCTTTCCAAAAATGGTTCCTTAAAT

3780

SEO ID NO: 5272

CC-0

3850

SEQ ID NO: 42735

CC BY-NC-ND 4.0 International license.

1839

Consensus

AAAAATGGTCTTTTGAATAGCCAACTCTAAATCCAATAGCTCTGTGTTAAGA'TATATCCATAGAGCCCCTCCTAC

3850

SEQ ID NO: 5272

CC BY-NC-ND 4.0 International license.

3920

SEQ ID NO: 42735

CC BY-NC-ND 4.0 International license.

1909

Consensus

GAATCACACTGAGACCTCTCCAGAGAGT"TTTACTTCTTTGGTATCCGACCATAATGCCTCTGGCGTATTC

3920

SEQ ID NO: 5272 [REDACTED] 3941

SEO ID NO: 42735 1930

Consensus

TAAATGCCGGNTTTCGTAGCA 3941

ATTACHMENT C

70

70

CCGCCAATGAAATATATATCACTGGCCAAATTGTACATTGAGTGTGGAGTGGATAAGTAATAAGAGACAAA

140

140

CAATCATCCCAACAAGTATTTGGTTAACTTTGGGAAGGCACAAGTTTTTGAAACAAACCTTATGTTCTGCATTCTA
140

210

210

AAATAGTGAAGGTTTCCTCATTTGCCTTGAAAGGCCCGTGCGGGTGCTTTGNNNNNNNNNNNNNNNNNNNNN

210

280

280

NNNNNNNATCAATCCACAACCAAGAGATATTACGAGCCATTACTCAGACATACAGATCTTTGGCTGGTGAGA
280

350

350

Consensus

TTCATGCATCGACAACCATAGATTGAAAAGGAAAAATGTAAGTAGACACCCACCTGTTCATCCTCTGACA

350

SEO ID NO: 5272

C C C C C C C C C C C C C C

420

SEQ ID NO: 9911

██████████ C █ C █ C █ CC ██████ C █ C █ C █ C █ C █ C █ CC █ C █ CC █ CC ██████ C █ C █ CC █ CC

420

Consensus

ATGGGTACACATCACCAAATAA'TGTCAC'TCTTGCA'TTCGATAAGCCACTCCATCCGGGTAT'CTGCCAGCC

420

SEQ ID NO: 5272

[illegible]

490

SEO ID NO: 9911

Page 22 of 22

490

Consensus

AAATCAACGGTTACATAACATAAAGGGTAAACCTTTTGCTCGTATAATTAAACACAATAGCCAATGTTA

490

SEQ ID NO: 5272

CC BY-NC-ND 4.0 International license.

560

SEO ID NO: 9911

CC BY-SA

560

Consensus

CCTGAACAACAAGGCTGCATCTAGGTTTCATTCAAGACATTTTCGTGTGTGGATGGCCAGCGGTGAAAACAA

560

SEQ ID NO: 5272

CC BY-NC-ND 4.0 International license.

630

SEO ID NO: 9911

DECLASSIFICATION AUTHORITY

630

Consensus

AAATATTGCATCTGATAAGAAAAAGTAGAAGCAATTCAAGAAATGAGCATCTATTATATCTCAACCAGTA

630

SEO ID NO: 5272

[illegible]

700

700

GACTCAAAAACATTAAATTGTACCATTTATAAATTTGGTATTGCCTTCAATACACAGACACAAAAACACTCCTA
700

770

770

CATGTACACCCTCTAATGAAATTAAAGGAAAAAGAGCGAAAAAAACCGCTTTGACTTCACTTCCTACTATTCTG
770

840

840

TTCCACAAAAATCAAAATCAAGTTAAATTTTTTACAGTTAGAGGAGTTATGACTAAGAAACAATTGTTCGAC

910

910

TGGCAAAATAAATTAAACTCATACCTCTGAGAAAAAAATTGAGCGTGCACAAAAGAAGACACTGTAGAAGTAG
910

980

980

980 GAGCAGTCAACAAAGAAAGATAGACTGAGTGACTTACGCCCATCCGATCAGGTGCAAAATCTACCAATG

1050

1050

AGCCAAATGGGTACCCCTTCCCTTGGGTGGTGCATTTTGGACATCACTGTGCACAGATGAGCAAACCTAGC
1050

C C C C C C C C C C C C C C

1120

1120

CTTGAATCATAAAACACAACAAGACAGACAGATAAAGAACCTTAAATAATCTTTTCTCATTTGAAGTAAA
1120

1190

1190

AAGGAAGAATACAAACCATCTAAAGGACAAACCTTTTACCTGTTCCAACAAGTTCCTACAGCTAAAGC
1190

1260

1260

AGGCCCGAGGTTAAAGCATGAGCTTATGTAGCATTTTGAACACCACCAGATATTGGAGTTCTAAAAAGCCCCA
1260

1330

1330

GCFCGATTTTCCTCCACCACCCCTGAGGATGTGCAAGAGATGCCTCCACATCGATTACACTATGAGAAGTTT
1330

1400

1400

CACCATGGTATTAATCTCTATGTCAAAGCA
1400

1470

1470

1470

1540

1540

AGTTTGTGTTGTC AAAAATTGTAATTTTGTGCTGAATTTTTCATACCCAAAACAAAAGTTATAATCTTTAG

1610

1610

TTGAATTTATTATCACAAGACAAGAGAAAAAGTACCTGTGATAAAGAGAAGATATCCCCAGGAAAAAAA

1680

[illegible]

CGAAACCCGATTATTATCTTCACTTTCACTTGGCGTCTCGTTACGTAAGAGAGCTTGTATACGAAGCCCGT
1680

1750

1750

GACTTGGATGCCATTACTGAGTCTCCAGCTTCGGGAATTGCGTTTTGGGTAGCGAATTACAAAACCAACACGA
1750

1820

1820

AGACTGGGATGAAGTGGGACAGCGGAGATTTCAGGAGAGGCTTAGTCTGTAAATTGGGTGTGTGTGTTGAA
1820

1890

1890

GTGAAGAGAGGCTTCCATGGTGGATGAGAATAAGATTTTGGGTTGAAGAGTCTTCTGATCTTTCACTATGGC
1890

1960

1960

AGATGCTTCAGGCGTCTTTGGTTTAAAGTAGCTTTATGCAATTAGGACTTTTCCAGAGTAGGGTTTGTATAA
1960

SEQ ID NO: 5272

CCCC

2030

SEQ ID NO: 9911

CCCC

2030

Consensus

CACACACATACATATAAGGTTTTCTTTTCTTTTGGCTTTTTTTTATAGTTGGATTACGATTACTTT

2030

SEQ ID NO: 5272

CC

2100

SEQ ID NO: 9911

CC

2100

Consensus

TGTCCTTCGGAATTACTTTTGGATGTATTTCTATTCTCTTTGTTTTCTTTTGATGTTGATAATAACGAA

2100

SEQ ID NO: 5272

CC

2170

SEQ ID NO: 9911

CC

2170

Consensus

TTTTCCCTTGAATAAAGAAAAATCTGTTTCTTTTAAATTTACAATTTTATTGATAATAACATAATATTCTA

2170

SEQ ID NO: 5272

CC

2240

SEQ ID NO: 9911

CC

2240

Consensus

AGAAATTATCTTTGTTTAAAAAATTTGGGAAAGAAAAGATTTCAATCTCATCTCAAAGAACCTGATAAT

2240

SEQ ID NO: 5272

CC

2310

SEQ ID NO: 9911

CC

2310

Consensus

GACTATTGGATTACCAATTATTCGGTTTCTAAAATCTTCTTACTGTTGATTAAAAAATTAAATCTCCTCT
2310

SEQ ID NO: 5272

2380

SEQ ID NO: 9911

2380

Consensus

AAAGAAATATCTATCATCTCAAATTGGTTCAGACCATTTTAAATTTACGTTGAAAAGAAAGATCAAACAGA
2380

SEQ ID NO: 5272

2450

SEQ ID NO: 9911

2450

Consensus

TCAATGACACAAACTATAATTAAAGGCACATAAACACTAAATGTCCTAATTTGCATAATGCGGGACCCATGT
2450

SEQ ID NO: 5272

2520

SEQ ID NO: 9911

2520

Consensus

CAATAATATTTCTCAAACGTTTCTGTTTTCAGCCCATCCTTCCTCCGAATCCACGCGCCACCGTCTAAGC
2520

SEQ ID NO: 5272

2590

SEQ ID NO: 9911

2590

Consensus

TGCTGCGTCATTGCACGCGCAATTGCTTTCAACCGCTCGAATCATCCAGCTGAAACTCCAGTCACAT
2590

SEQ ID NO: 5272

2660

SEQ ID NO: 9911

2660

Consensus

2660

SEQ ID NO: 5272

2730

SEQ ID NO: 9911

2730

Consensus

2730

SEQ ID NO: 5272

2800

SEQ ID NO: 9911

2800

Consensus

2800

SEQ ID NO: 5272

2870

SEQ ID NO: 9911

2870

Consensus

2870

SEQ ID NO: 5272

2940

SEQ ID NO: 9911

2940

Consensus

2940

[REDACTED]

SEQ ID NO: 9911

[REDACTED] CC [REDACTED] CC [REDACTED] CC [REDACTED] CC [REDACTED] CC

GGAGGCCAAGGAAGAAGAGGACCAGAAACGAAATTTTGAGTAAGAGATTTGCAATTTGGGCAAATGACAC

CC BY-NC-ND 4.0 International license.

SEQ ID NO: 9911

CC BY-NC-SA 4.0

GCCGGAAATGACGAGCGAAGAGAAAATTTGAGGCATGGAACCTAGCGTCACAAGAACGGCAGAGGAAGGC

[REDACTED]

SEQ ID NO: 9911

cc

.....

AGAGTCCGCGGCACAATGGAGATCAGCTTCGGCACCACAAAGCTCGCAAAGCTCACCAATTGAGTCGATC

CC BY-NC-ND 4.0 International license.

SEQ ID NO: 9911

[REDACTED]

TCTCTGGATCACCAGAAAGAAGTGAGAGAGAATTGGTTTGAATGATGATGGTGGGAAGAGAGATTTAAG

DATE: 10/10/2008
TIME: 11:11 AM
PAGE: 10/10

SEQ ID NO: 9911

[illegible]

Consensus
GAAGAGATGTAAATGATTGACGGAGAGAAAGAGCCGTGGAGTTTTTATGGTTCATGGTTGATGAGAGTAG

3290

SEQ ID NO: 5272

3360

SEQ ID NO: 9911

3360

Consensus
TCTCTTTCCACAGTTTCACACATCAAAGAACTTACATGAGCCATAATTTTTTAGGGAAATGAAATGAATGG

3360

SEQ ID NO: 5272

3430

SEQ ID NO: 9911

3430

Consensus
TGTTTTGCTAGAAATTGGGAGAGAAATGACGTTCTGTGAGGTTTTGAGGCTGGTGAGATTATGTGGTCATTTTTTA

3430

SEQ ID NO: 5272

3500

SEQ ID NO: 9911

3500

Consensus
 AAACTATTACACTAGCCGCCAACTTATATKCTTCTTCTTTTGGTGTGACGTGGAGATTTAGTCAACACTAA

3500

SEQ ID NO: 5272

3570

SEQ ID NO: 9911

3570

Consensus
TGTCCTTTTCAGAGACTTGGTCTCATTGCAAATTGCTTCTTCTCTTTTCTGGGTGCTTCCATTACATTT

3570

SEQ ID NO: 5272

3640

3640

CTTCTGCATTGTTGGCAGTCTTTTATATAAACTTTTATACATTGATCTTTTGTGCGAATACAAAACAGAAGA
3640

3710

3710

TAATACCTCTTAATTTATAATCTAAGGACTAAGGATACAAAAACAAGGTGTAAACTGTGGTGAACCTGTT
3710

3780

3780

TGGGTTTCCTGATUCGAAC TAGTACAACAAATAGTCTATATCTTGAAATCTTTCCAAAAATGGTTTCTTAAAT
3780

3850

3850

3850 AAAATGGTCTTTGAATAGCCCAATCTAAATCCAATAGCTCTGTTAAGATATATCCAATAGAGCCCTCCTAC

3920

3920

GAATCACACTGAGACCTCTCCACAGAGTTTTTACTTCTTTTGCTATCCGACCATAATGCCCTCTGGCGTATTC
3920

SEQ ID NO: 5272	CC	C	C	3941
SEQ ID NO: 9911	CC	C	C	3941

Consensus	TAAATGCCGGNTTTCGTAGCA	3941
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